

National Telecommunications and Information Administration (NTIA)



- Technology Infrastructure
- Broadening Trade
- Critical Infrastructure

Enabling Legislation

In 1992, the Congress codified the National Telecommunications and Information Administration's (NTIA) responsibilities as part of the Telecommunications Authorization Act of 1992, P.L. 102-538. NTIA is the Executive Branch agency principally responsible for domestic and international telecommunications and information policy issues.

Bureau Context

NTIA envisions a world where telecommunications and information technologies are used to protect and improve the global quality of life. **NTIA's mission is to promote the efficient and effective use of telecommunications and information resources in a manner that creates job opportunities, enhances U.S. competitiveness, and raises the standard of living.**

The telecommunications and information revolution is bringing dramatic growth and change to the Nation's economic, social and political life. These exciting developments affect every American to some extent because nearly everyone uses telephones, televisions, computers, radio and related technology. Citizens receive public services and protections that rely upon telecommunications technology. Communication is fundamental to the very organization of society and to life as it is lived today. Affordable access to telecommunications technology is becoming a basic necessity for a successful and productive life in all sectors of our society, including business, academia, industry, banking and government. The rapid growth and critical importance of the telecommunications and information industries will continue for at least the next decade, domestically and internationally. By the 21st Century, telecommunications and information-related industries will account for approximately 20 percent of the U.S. economy. Telecommunications and information issues are dynamic, multi-disciplinary and complex. NTIA's expertise and advocacy enable the U.S. to continue its lead in this integral part of America's competitiveness.

NTIA is addressing a number of key telecommunications challenges, including:

- *Internet Domain Names:* NTIA, through the Department of Commerce, is supporting efforts to make the governance of the domain system pri-

vate and competitive. Through these efforts, the U.S. will transfer responsibility for management functions now performed by or on behalf of the United States, to the new corporation. The transfer will begin as soon as the new corporation is operational and stable, and is intended to be completed by October 1, 2000.

- *E-Rate (Universal Service Fund):* The Administration has been a leading proponent of the Education or E-Rate, which allows eligible schools and libraries to establish connections to the Internet at discounted rates. DOC, along with other agencies, is working to implement the E-Rate program through outreach and education.
- *Mergers:* The telecommunications industry is being affected by the same merger wave that is washing over the economy generally. The growing numbers of combinations is increasing concentration within the industry, although the effects vary from sector to sector. The Department of Commerce is studying these mergers and may decide to weigh in with comments to the FCC on particular mergers if appropriate.
- *Critical Infrastructure Program:* This new program necessitates a budget supplement for FY 1999 funding and must meet deadlines specified in the Presidential Decision Directive 63 for the Information and Communications Sector.

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Priorities and Initiatives

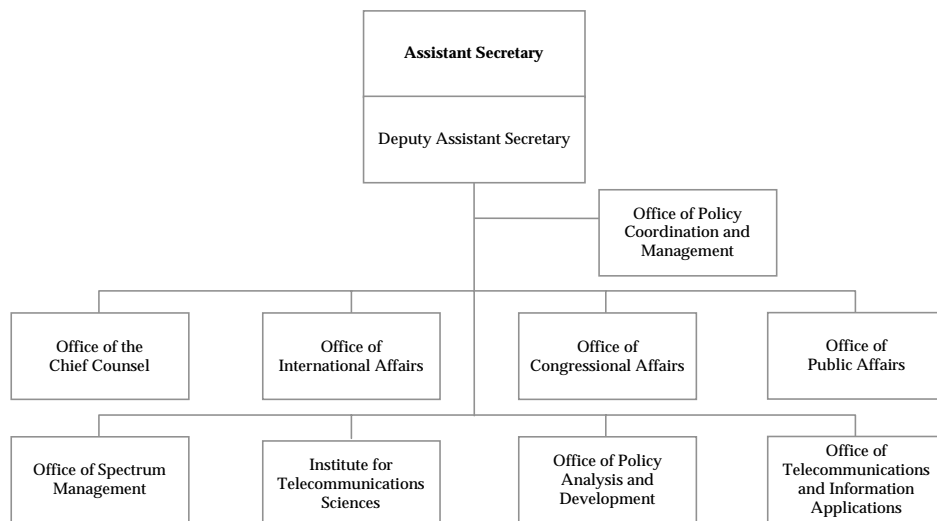
Technology Infrastructure - NTIA will focus on developing and promoting the Internet and other communications platforms and managing radio spectrum.

Critical Infrastructure Program - The Secretary has designated NTIA to serve as the lead agency for the Information and Communications Sector under the Critical Infrastructure Program. The program is defined by Presidential Directive 63 (PDD-63) which calls for a national effort to assure the national security of the increasingly vulnerable and interconnected infrastructures of the United States. It stresses the critical importance of cooperation between the government and the private sector by linking designated agencies with private sector representatives.

The PDD-63 instructs the Department of Commerce to establish the Critical Infrastructure Assurance Office (CIAO).

Broadening Trade - NTIA will also continue its efforts to expand trade opportunities for the U.S. telecommunications industry.

Organizational Structure



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Measures and Targets Summary

<u>Measure</u>	<u>Target</u>
Goal: Open Markets	
Full compliance of countries with FY 2000 World Trade Organization (WTO) commitments	100%
Goal: Radio Spectrum Assignments	
New agency-requested spectrum assignments	200,000
Goal: Public Interest Promotion	
Maintain or increase current telephone subscription rates	96%
Increase Internet accessibility and use	NA
Goal: Advanced Telecommunications	
TIAP grant awards / models	50

Resource Requirements Summary



\$72.3 Million



336 FTEs

Skills: Scientists, Engineers, Lawyers, Economists, Policy Analysts, Support Staff



IT Requirements: \$6.4 Million

NTIA

Open Markets: Promote open markets and encourage competition



• Broadening Trade

Rationale for/Comments on Performance Goal:

Open and competitive markets lead to lower prices, increased innovation, and more competitive telecommunications and information service choices for all consumers. These efforts directly support the Department's theme of building for the future and promoting U.S. competitiveness in the global marketplace, by strengthening and safeguarding the Nation's economic infrastructure.

This goal supports the initiative to broaden trade. Through new priorities and initiatives approved by the Department for FY 2000, NTIA will continue to play a substantial role in the implementation of the WTO Basic Agreement on Telecommunications (\$500,000); and work with MBDA and ITA to promote Africa Electronic Commerce, targeted at small and mid-sized minority businesses.

Measure: % of countries meeting FY 2000 commitment to implement the WTO agreement on basic telecommunication services

<i>Year</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>
Target	NA	NA	NA	100%	100%
Actual	NA	NA	NA	TBD	TBD



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Data Validation and Verification

Data collection: ITA Database

Frequency: Monthly Reports

Data storage: ITA maintains and updates

Verification: Commerce trade experts from ITA and NTIA, with input from private sector sources, will monitor and evaluate implementation within these countries.

Comment: Sixty-nine countries adopted the (WTO) Agreement on Basic Telecommunications in 1997. This landmark agreement, which NTIA helped negotiate, covers over 95 percent of world revenues for basic telecommunications services -- a \$675 billion industry -- and ensures that U.S. companies can compete against and invest in telecommunications companies around the globe. As part of an interagency team, NTIA will continue to work on implementation of the agreement and assist in monitoring the compliance of countries under the agreement. In particular, NTIA has taken a leadership role in designing an implementation plan to assist developing countries in crafting legal and regulatory frameworks to meet their obligations under the agreement.

NTIA

Open Markets: Promote open markets and encourage competition (cont.)



• Broadening Trade

Means and Strategies

Strategy or Rationale	Means or Activity	Output Indicators
Develop and facilitate implementation of appropriate policies	Represent the U.S. and/or Executive Branch in bilateral, regional, and international forums, such as: <ul style="list-style-type: none"> - Discussions with Russia and China - Sponsorship of the Latin American Telecommunications Summit (LATS) - Participation at International Telecommunication Union (ITU) Conferences - Comsat oversight and Intelsat/Inmarsat participation - Support implementation of the TC Act of 1996 - Work with legislators to achieve U.S. legislation that supports U.S. interests to leverage ISOs restructuring - Monitor accomplishments of WTO/GBT signatories in establishing an independent regulator 	<ul style="list-style-type: none"> # of pro-competitive U.S. policies initiated # of Federal Communication Commission Filings # International meetings attended
Advocate a more pro-competitive international satellite services market	Oversee Comsat and Intelsat/Inmarsat participation	# of participants in Comsat and Intelsat / Inmarsat
Assist developing countries in strengthening their telecommunications and information infrastructure.	Provide training in modern spectrum management techniques to telecom personnel	# of programs to assist emerging market countries to build infrastructure

Crosscutting Activities

- *Federal Agencies, Including U.S. Trade Representative, and other Commerce bureaus, Including ITA:* Development of U.S. Executive Branch positions involve personal coordination and negotiation with these agencies. Senior policy specialists up to and including Assistant Secretary engage in regular communication with other agency counterparts.
- *MBDA and ITA:* With these agencies, NTIA promotes Africa Electronic Commerce, targeted at small and mid-sized minority businesses.

External Factors

- Promoting open markets and competition presents a challenge that cannot be undertaken by a single country, or imposed by government fiat. Governments can facilitate these activities by creating a legal and regulatory environment that supports efficient investment and innovation, and promotes full and fair competition. Success in this area requires the coordinated efforts of many agencies within the U.S. government working closely with their counterparts in other sovereign nations.

NTIA

Radio Spectrum Assignments: Ensure spectrum provides the greatest benefit to all people



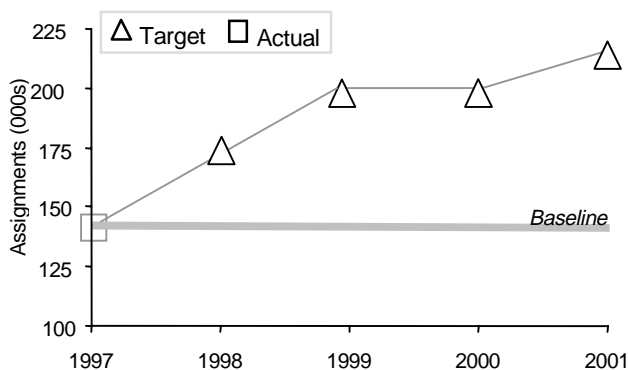
Technology
Infrastructure

Rationale for/Comments on Performance Goal:

Radio spectrum is a scarce resource supporting government communication, public safety, and national defense, while private sector uses are burgeoning. Efficient management of these resources, research into new and better spectrum uses, and participation in international organizations help to assign radio spectrum to fulfill needed services. This goal directly supports the Secretary's theme to provide management and stewardship of our Nation's resources and assets to ensure sustainable economic opportunities. NTIA's spectrum management activities are currently funded by other federal agencies at the 80% level.

This goal supports the initiative for technology infrastructure. For FY 2000, the Department has approved a new initiative leading to further automation of the spectrum management process at a total direct cost of \$200,000 and reimbursable cost of \$800,000 (total priority/initiative value: \$1 million).

Measure: Number of new agency-requested spectrum assignment actions



Data Validation and Verification

Data collection: Government Master File (GMF) maintained by NTIA; data is collected from federal agency requests for spectrum assignment actions

Frequency: Monthly

Data storage: NTIA mission critical system; data available on CD-ROM

Verification: GMF has built-in checks; also staff review outside of these checks.

Comment: Number of new frequency spectrum assignment actions is a limited measure of effectiveness of these activities, but the most quantifiable. Radio spectrum assignment effectiveness is ensured by the Interdepartmental Radio Advisory Committee (IRAC) who administer quality advisory recommendations to the Assistant Secretary's office.



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NTIA

Radio Spectrum Assignments: Ensure spectrum provides the greatest benefit to all people (cont.)



Technology
Infrastructure

Means and Strategies

NTIA's spectrum management activities are designed to establish and maintain a collaborative process with the federal agencies that depend upon the spectrum to fulfill their mission requirements. These 23 agencies are represented through the Interdepartmental Radio Advisory Committee (IRAC). Through a system of sub-committee and ad-hoc groups involving both the federal agencies and NTIA participation, IRAC provides advice to the Assistant Secretary on all spectrum matters.

Strategy or Rationale	Means or Activity	Output Indicators
Develop and implement spectrum plans and policies for both government and private sector users	Coordinate long-range plans for spectrum use	# spectrum analysis reports created
Satisfy the spectrum needs of Federal government agencies	Process frequency assignment action requests from agencies Establish follow-on program to the Public Safety Wireless Advisory Committee (PSWAC) to address PSWAC recommendations	Approx. 86,000 requests processed
Advance development of spectrally efficient technologies	Implement Federal standards, rules, regulations, & procedures Reviewing and coordinating national satellite systems	- # of necessary revisions to spectrum rules - 50 national satellite systems reviewed and coordinated
Improve the management of Federal and non-Federal spectrum	Process Federal agency requests for spectrum and interference resolution support Provide spectrum information and consultation	# of support requests processed

Crosscutting Activities

- *23 Federal Agencies:* NTIA works with each of 23 federal agencies who are represented on the Interdepartmental Radio Advisory Committee (IRAC). IRAC assists the Assistant Secretary on all spectrum matters.

External Factors

- NTIA's dealings with federal agencies, and ability to develop acceptable changes in their spectrum, are key to fulfilling this strategic goal.
- Other federal agencies provide advice to NTIA on spectrum management and resolution and other problems between the government and non-government sectors domestically. Internationally issues are resolved through forums such as the ITU. Because effective international spectrum management depends on cooperation and adherence to common practices, NTIA operates as much as possible through the development of consensus among affected parties.

NTIA

Public Interest: Advance the public interest in telecommunications, mass media, and information



- Technology Infrastructure
- Critical Infrastructure

Rationale for/Comments on Performance Goal:

Affordable access to telecommunication technology is becoming a basic necessity for a successful and productive life in all sectors of our society, including business, academia, industry, banking, and government. Improved access to information, made possible by advanced telecommunications and information technologies, will increase productivity, create new jobs, help educate our children, and provide better medical care to all Americans. Broad access also brings the benefits of the Information Age to the traditionally unserved and under-served, including the poor, minorities, rural Americans, and disabled individuals.

This goal supports the priorities and initiatives to develop technology infrastructure and maintain the Nation's critical infrastructure. NTIA is developing technology infrastructure by promoting both Internet use and the digital conversion of public broadcasting. NTIA will also move forward on protecting the Nation's critical infrastructure as the lead commerce agency for the information and communications sector.



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Measure: Maintain or increase telephone subscription rates

Year	1997	1998	1999	2000	2001
Target	96%	96%	96%	96%	96%
Actual	96%	TBD	TBD	TBD	TBD

Data Validation and Verification

Data collection: Data is available via Census Bureau
Frequency: Annual
Data storage: The Census Bureau maintains and tabulates the data.
Verification: The Census Bureau uses established statistical techniques.
Comment: Since telephone subscription rates are already at 96%, there is only room for marginal annual improvement. In a dynamic economy, maintaining this subscription rate will constitute a significant challenge, compounded by the many personal factors that can influence choices.

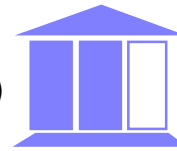
Measure: Increase Internet accessibility and use

Data Validation and Verification

Target: To be determined after 2000 Decennial determines baseline.
Data collection: NTIA is making special arrangements with Census Bureau for the 2000 Decennial
Frequency: Annual estimates after 2000
Data storage: Bureau of the Census
Verification: Established survey statistical techniques
Comment: Government and industry observers of the development of the Internet have found great difficulty in measuring penetration and use and are still in the process of developing generally acceptable standards for measurement. NTIA will continue to work with the Bureau of the Census as these measurements are refined.

NTIA

Public Interest: Advance the public interest in telecommunications, mass media, and information (cont.)



- Technology Infrastructure
- Critical Infrastructure

Means and Strategies

<u>Strategy or Rationale</u>	<u>Means or Activity</u>	<u>Output Indicators</u>
Promote universal service and access to telecommunication	Assist in maintenance Upgrade the services of public broadcasting and telecommunication facilities, including digital broadcasting Create substantive technical, economic, and legislative policy analysis	# of technical assistances to public broadcasters
Determine the public-interest obligations of broadcasting, including promoting a diversity of choices and programming sources in the mass media	Coordinate with the White House and other Executive Branch agencies Use Federal Advisory Committee support and management Facilitate private sector discussions by obtaining expert and public views, including Federal Register notices for requests for comments, public conferences, seminars, and focus groups Encourage private sector initiatives to give citizens the ability to protect their children from indecent material Establish principles for the protection of personal privacy	# of conferences and seminars # of advisory committee meetings # of reports on current telecommunication models # of content policy models
Work to maintain the U.S. telecommunications and information infrastructure in time of crisis	As lead agency for the Information and Communications Sector under the Critical Infrastructure Program (CIP), NTIA will coordinate and prepare the report and plan called for in Presidential Directive 63.	Plan required by Presidential Directive 63

Crosscutting Activities

- Since the Critical Infrastructure Program (CIP) is a new program, involvement from other federal agencies has yet to be finalized.

External Factors

- There are many exogenous variables affecting telephone penetration rates, including income and affordability.
- Extensive debate is underway in the United States and numerous other countries on how to define universal service and how to promote open access to it, particularly in the context of further liberalization in telecommunications markets and progress toward realizing the goals of the National Information Infrastructure (NII) and similar foreign infrastructure initiatives.

NTIA

Advanced Telecommunications: Promote the availability and sources of advanced telecommunication and information services



- Technology Infrastructure
- Critical Infrastructure

Rationale for/Comments on Performance Goal:

NTIA provides matching grants to non-profit organizations such as schools, libraries, hospitals, public safety entities, and state and local governments to develop a leading technological or information system. Grants are used to fund projects that improve the quality of, and the public's access to, education, health care, public safety, and other community-based services. By serving as models that can be replicated in similar communities across the country, these projects extend their benefits far beyond the communities in which they take place, and provide economic and social benefits to the Nation as a whole.

This goal supports the initiatives to develop technology infrastructure and maintain the Nation's critical infrastructure. NTIA is managing a substantial grant program designed to demonstrate the benefits and applications of technologies such as the Next Generation Internet that will improve the Nation's technological infrastructure.

Measure: Independent evaluation

Data Validation and Verification

Target: Not applicable.
Data collection: Formal evaluation contracts
Frequency: Annual report
Data storage: Reports printed and circulated posted on Web site.
Verification: NTIA staff and grantees review data.
Comment: NTIA faces significant challenges in attempting to quantify the economic and social benefits of each model that it supports through grant funding. NTIA continues to make progress at incorporating evaluation methods in its grant program where appropriate. NTIA requires all grant recipients to conduct objective evaluations of their projects; extension of grants to potential applicants is dependent in part on their proposed plans for evaluation. In addition, NTIA publishes reports, such as "Lessons Learned," that detail the experiences of grantees and further inform similarly situated entities.

Measure: Number of models / grants available for non-profit or public-sector organizations

Year	1997	1998	1999	2000	2001
Target	55	46	50	55	60
Actual	TBD	46	TBD	TBD	TBD

Data Validation and Verification

Data collection: Formal evaluation contracts
Frequency: Annual report
Data storage: Reports printed and circulated posted on Web site.
Verification: NTIA staff and grantees review data
Comment: Number of models / grants available for non-profit or public sector use serves as a best quantifiable proxy for the impact of NTIA upon advancing technological solutions. The models demonstrate how to use the information infrastructure to benefit communities and individuals.



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NTIA

Advanced Telecommunications: Promote the availability and sources of advanced telecommunication and information services (cont.)



- Technology Infrastructure
- Critical Infrastructure

Means and Strategies

Strategy or Rationale	Means or Activity	Output Indicators
Stimulate technological innovation	Issue grants in a highly competitive, merit-based process Demonstrate advanced, innovative application of telecommunication and information technology in the non-profit and public sector Promote the growth of electronic commerce and Internet use domestically and internationally Initiate cooperative research and development	# of grants issued (55) # of demonstrations # of R&D supported projects # of reports on current telecommunication issues
Promote international acceptance of U.S. technological proposals	Participate in International Telecommunication Union and domestic standards, including the Asia Pacific Economic Cooperation's Telecom Working Group Participate in conferences urging minimal regulation and early adoption of electronic commerce and the Internet Establish a bilateral / multilateral exchange process to promote joint solutions to cross-border Internet policy issues	# of conferences participated in # of publicly circulated proposals for international conferences

Crosscutting Activities

- NA

External Factors

- Sovereign nations have their own views on proper ways to develop technologies, including standards setting. NTIA coordinates effective preparation of U.S. views for international conferences, prepares substantive scientific and technical justifications for proposals, and holds bilateral discussions in advance of conferences. These discussions involve all levels of staff including the Assistant Secretary.